2008 VADEQ Citizen/Non-Agency Monitoring Activity Report

Since 2004, the number of stations monitored by citizen monitoring organizations, non-DEQ government agencies, private industries, and other monitoring groups has increased and many have been incorporated into the bi-annual 305(b)/303(d) Integrated Water Quality Assessment Report. 2008 has proven to be a record-breaking year in terms to the amount of water quality data received from non-DEQ sources.

Citizen Monitoring Group Activities:

One of the ways DEQ tracks citizen monitoring is to identify the number of monitoring groups that have Level III Quality Assurance (QA) status.

QA Level III status is awarded to non-DEQ monitoring organizations that have met three conditions:

- 1. Pass a DEQ field or (when applicable) laboratory audit
- 2. Possess a DEQ approved Quality Assurance Project Plan (QAPP) and field or laboratory Standard Operating Procedures (SOP)
- 3. Organization provides calibration and other quality control information to DEQ. This information must meet the specific criteria stated in the QAPP.

Level III groups provide data that is comparable to DEQ field data. Because of this, Level III data can be used to independently list or delist waters from the 303(d) Impaired Waters List.

Table 1- Level III Citizen Volunteer Organizations and Academic Institutions as of November 2008:

_		Verified*	
	Member	Level III	
Citizen Group	Groups	Sites	Level III Parameters
Alliance for Chesapeake Bay	20	73	Temperature, Dissolved Oxygen (DO)
Chesapeake Bay Governors			
School/Tidewater RC&D	1	12	Temperature, DO, pH
Clean Virginia Waterways	1	22	E. coli
Environmental Alliance for Senior			
Involvement	1	1	Temperature
Friends of Shenandoah River (FOSR)	6	159	Temperature, DO, pH, Nutrients
Historic Green Springs Inc.	1	7	Temperature
			Temperature, DO, pH, E. coli,
Lake Anna Civic Association	1	21	Nutrients
McClure River Restoration Project	1	13	E. coli
National Committee for the New			
River**	1	10	Temperature, DO
Smith Mountain Lake Association**	1	105	Temperature, DO, pH, E. coli
Sweet Briar College	1	6	E. coli
			Temperature, DO, pH, E. coli,
Timberlake Homeowners Association	1	11	Nutrients, chlorophyll a
Total	36	440	

^{*} Stations with accurate site coordinates and located away from mixing zones and other permitted discharges

In addition to the contributions provided by Level III monitoring groups DEQ also works closely with monitoring groups that have Level II Quality Assurance (QA) status.

^{**} Organizations that received Level III status in 2008

QA Level II status is awarded to non-DEQ monitoring organizations that have a DEQ approved QAPP. At this level, field or laboratory methods may deviate from DEQ recognized methods if it is demonstrated that the method provides similar quality data to an approved method.

Level II groups provide useful data to DEQ for identifying waterbodies for future DEQ monitoring and providing a generalized tracking of the success of efforts to implement Total Maximum Daily Loads. Level II data cannot be used by DEQ to list or delist waterbodies on the 303(d) Impaired Waters List

Table 2- Level II Citizen Volunteer Organizations and Academic Institutions as of November 2008:

Table 2- Level II Citizen Volunteer Organization		Verified*	
	Member	Level II	
Citizen Group	Groups	Sites	Level II Parameters
Alliance for the Chesapeake Bay	20	59	Temperature**, DO**, pH
Arlington County Monitors	1	10	E. coli
Audubon Naturalist Society	1	22	Macroinvertebrate
Friends of Blacks Run Greenway	1	15	E. coli
Goose Creek Association (SOS Member)	1	22	E. coli, Macroinvertebrate
Headwaters SWCD (FOSR Member)	1	10	E. coli
John Marshall SWCD (SOS Member)	1	10	E. coli, Macroinvertebrate
Lord Fairfax SWCD (FOSR Member)	1	12	E. coli
Loudoun Wildlife Conservancy	1	42	E. coli, Macroinvertebrate
Mattaponi and Pamunkey Rivers Association	1	11	E. coli
Opequon Watershed Inc. (FOSR member)	1	25	E. coli
Randolph Macon College	1	12	E. coli
RappFLOW	1	19	Temperature, DO, pH, E. coli
StreamWatch (SOS Member)	1	41	Macroinvertebrate
Trinity Episcopal School	1	3	E. coli
Upper Rappahannock Watershed Stream			Temperature, DO, pH,
Monitoring Program (SOS Member)	1	27	Macroinvertebrates
Upper Tennessee River Roundtable	1	9	E. coli
Virginia Save Our Streams (SOS)	41	385	Macroinvertebrate
Total	77	734	

^{*} Stations with accurate site coordinates and located away from mixing zones and other permitted discharges

Citizen Monitoring Grant:

In October of 2007, funding for the DEQ FY2008 Citizen Monitoring Grant was temporarily cut as part of agency-wide budget cuts. This occurred after the agency received 33 grant applications requesting \$132,326.67 compared to \$106,000 allocated to the grant program.

Although funding for the grant program was eliminated for FY2008, the Smith Mountain Lake Association did receive \$19,000 from the agency. This funding is normally directed through the grant program as part of a line item allocation authorized by the General Assembly.

For the FY2009 Citizen Monitoring Grant, DEQ received 32 applications totaling \$135,933.06 in requests compared to \$108,000.00 allocated. After reviewing applications using a three person inter-agency panel, 30 applicants received awards. Grants will support volunteer based monitoring activities from January 1 through December 31, 2009. A final report from each recipient, including monitoring data, is due by March 1, 2010. Appendix 1 contains more information about the FY2009 grant recipients

^{**} Dormant Alliance stations which submitted data prior to achieving Level III status

Citizen Mileage:

In 2002, the Virginia General Assembly passed legislation that established the Virginia Citizen Water Quality Monitoring Program in the Code of Virginia (§62.1-44.19:11). During the 2007 General Assembly, House Bill 1859 was passed that amended the Code to include, "It shall be the goal of the Department to encourage citizen water quality monitoring so that 3,000 stream miles are monitored by volunteer citizens by 2010."

Based on data submitted and incorporated into the final 2008 305(b)/303(d) Integrated Water Quality Assessment Report, DEQ has calculated that 2,371.61 miles were monitored by citizen groups. In addition, citizen monitoring contributed data to cover 73.74 square miles of estuaries and 9,726.15 acres of lakes/reservoirs. These figures are based on monitoring data provided to DEQ from January 1, 2001 through December 31, 2006, that were included in the 2008 305(b)/303(d) Integrated Report.

Table 3: Contributions provided by citizen monitoring and affiliated organizations included in the 2008

305(b)/303(d) Integrated Report. Tally includes Level II and III data

	Sites	Sites	Riverine	Estuary	Lake
Citizen Group Name	Submitted	Measured	(Miles)	(Sq. Mi.)	(Acres)
Alliance for the Chesapeake Bay	136	123	164.04	71.7314	73.1
Arlington County Volunteer Monitors	10	10	7.86		
Audubon Naturalist Society	22	22	40.55		
Chesapeake Bay Governors School	12	8	59.64		
Clean Virginia Waterways	23	22	57.26		
Environmental Alliance for Senior Involvement	1	1	1.81		
Friends of Blacks Run Greenway	15	15	**		
Friends of Shenandoah River	225	159	805.52		0.74
Goose Creek Association	22	22	*		
Headwaters SWCD	10	10	**		
Historic Green Springs Inc.	7	7	33.82		
John Marshall SWCD	10	10	28.7		
Lake Anna Civic Association	28	21			9,595.35
Lord Fairfax SWCD	12	12	**		
Loudoun Wildlife Conservancy	42	42	76.62		
Mattaponi and Pamunkey Rivers Association	13	11	14.01	2.0093	
McClure River Restoration Project	13	13	31.19		
Opequon Watershed Inc.	25	25	**		
Randolph Macon College	12	12	5.7		
RappFLOW	19	18	14.97		
StreamWatch	41	41	**		
Sweet Briar College	6	2	8.35		
Trinity Episcopal School	3	3	10.37		
Timberlake Homeowners Association	11	11	4.93		56.96
Upper Rappahannock Watershed Stream					
Monitoring Program	27	27	**		
Upper Tennessee River Roundtable	9	9	15.5		
Virginia Save Our Streams	251	235	990.77		
Totals	1,005	891	2,371.61	73.74	9,726.15

^{*} Sites sampled by Virginia Save Our Streams Program. Provided additional data outside of VASOS parameters

^{**} Sites sampled by Friends of Shenandoah River Program. Provided additional data outside of FOSR parameters

Non-agency Mileage:

DEQ has also tallied the added benefit of monitoring data submitted by non-citizen volunteer organizations. These 'Non-Agency' monitoring data submitters consist of other government agencies, private businesses, and other organizations that voluntary provide monitoring data to DEQ but do not enlist citizen volunteer monitors.

Based on data submitted and incorporated into the final 2008 305(b)/303(d) Integrated Water Quality Assessment Report, DEQ has calculated that 1,262.98 miles were monitored by non-agency groups. In addition, non-agency monitoring contributed data to cover 266.09 square miles of estuaries and 5,412.33 acres of lakes/reservoirs. This figures are based on monitoring data provided to DEQ from January 1, 2001 through December 31, 2006, that were included in the 2008 305(b)/303(d) Integrated Report.

Table 4: Contributions provided by non-agency monitoring organizations included in the 2008 305(b)/303(d) Integrated Report. Tally includes Level II and III data.

sos(b)/sos(a) megrarea report. Tany metades E	Sites	Sites	Riverine	Estuary	Lake
Non-Agency Group Name	Submitted	Measured	(Miles)	(Sq. Mi.)	(Acres)
Chesterfield County Office of Water Protection	40	40	121.15		
City of Newport News Waterworks	6	6	25.49		1,049.46
City of Norfolk Public Utilities	20	20			694.72
Cumberland Resources Corporation	6	4	7.75		
Environmental Protection Agency	4	4	2.05		
Hampton Rhoads Sanitation District	2	2		8.5788	
Occoquan Lab	4	4			1,327.84
Old Dominion University	2	2		5.8186	
Page County Department of Environmental					
Services	18	18	20.83		
Shenandoah National Park	24	24	101.98		
Tennessee Valley Authority	2	2			1,699.32
United States Forestry Service	182	138	641.14		
United States Geological Survey	58	56	273.65		547.74
University of Virginia	20	20	62.55		
Virginia Department of Health Beach					
Monitoring Program	51	51		31.2089	30.27
Virginia Department of Health Shellfish					
Sanitation Monitoring Program	2,284	N/A*		156.8556	62.88
Virginia Institute Marine Science	48	48	3.1	63.6308	
Wolf Creek Wastewater Treatment Facility	1	1	3.29		
Totals	2,772	440	1,262.98	266.09	5,412.23

^{*} Virginia Department of Health provided shellfish growing areas for DEQ assessment purposes. Areas were sampled by VDH from January 1, 2001 through December 31, 2006. Stations not directly assessed by DEQ

Citizen Nominations:

As required by Code of Virginia <u>\$62.1-44.19:5.F</u> Water Quality Monitoring, Information and Restoration Act (WQMIRA), from January 1 through April 30 2008, DEQ received nominations for 18 waterbodies in Virginia. Of the nominations received, 15 waterbodies were requested to receive benthic macroinvertebrate monitoring and the remaining three for ambient monitoring by DEQ. Based on review of these nominations, DEQ will monitor at 12 waterbodies (10 benthic and two ambient) during 2009. The reason for not following up at the remaining three nominated waterbodies was due to difficult/unsafe access for DEQ monitors or limited agency resources. Appendix 2 of the report contains a list of waterbodies nominated and status of the nomination.

DEQ Follow-up of Citizen/Non-agency Sites:

In 2008 DEQ established 21 follow up monitoring stations (10 ambient, 11 benthic macroinvertebrate) based on information provided by the public and citizen volunteer monitoring organizations.

Based on monitoring data submitted to DEQ used in the 2008 305(b)/303(d) Integrated Report, DEQ has identified 59 waterbodies that qualify for high priority follow up monitoring based on water quality information submitted to DEQ. DEQ will attempt to collect samples in each of the identified waterbodies (or their respective watersheds) before the end of the 2012 sampling season.

Table 5: Waterbodies prioritized for DEQ follow up

County	Stream Name	Parameter	Name of Monitoring Group
Albemarle	Meadow Creek	Macroinvertebrate	Save Our Streams
Albemarle	Rivanna River	Macroinvertebrate	Save Our Streams
Albemarle	Rivanna River- South Fork	Macroinvertebrate	Save Our Streams
Arlington	Four Mile Run	E. coli	Arlington County Monitors
Arlington	Lower Long Branch	E. coli	Arlington County Monitors
Augusta	Barterbrook Branch	E. coli	Headwaters SWCD
Augusta	Christians Creek	E. coli	Headwaters SWCD
Augusta	Goose Creek	E. coli	Headwaters SWCD
Augusta	Lewis Creek	E. coli	Headwaters SWCD
Fairfax	Bull Neck Run	Macroinvertebrate	Audubon Naturalist Society
Fairfax	Colvin Run- Tributary	Macroinvertebrate	Save Our Streams
Fairfax	Pimmit Run	Macroinvertebrate	Save Our Streams
Fairfax	Snakeden Branch	Macroinvertebrate	Save Our Streams
Fauquier	Barton's Run	E. coli	Goose Creek Association
Fauquier	Bolling Branch	E. coli	Goose Creek Association
Fauquier	Cromwell's Run	E. coli	Goose Creek Association
Fauquier	Crooked Run	E. coli	Goose Creek Association
Fauquier	Goose Creek	E. coli	Goose Creek Association
Fauquier	Little River	E. coli	Goose Creek Association
Fauquier	Marsh Run	Macroinvertebrate	Save Our Streams
Fauquier	Thumb Run- East Branch	E. coli	John Marshal SWCD
Fauquier	Thumb Run- West Branch	E. coli	John Marshal SWCD
Fauquier	Upper Goose Creek	E. coli	Goose Creek Association
Frederick	Abrams Creek	E. coli	Opequon Watershed Inc
Frederick	Hiatt Run	E. coli	Opequon Watershed Inc
Frederick	Opequon Creek	E. coli	Opequon Watershed Inc
Frederick	Town Run	E. coli	Opequon Watershed Inc
Frederick	Wilkins Lake	E. coli	Opequon Watershed Inc
Hanover	Mechumps Creek	E. coli	Randolph Macon College
Hanover	Mechumps Creek-Tributary	E. coli	Randolph Macon College
Hanover	Mechumps Creek- Tributary	E. coli	Randolph Macon College
Loudoun	Catoctin Creek	E. coli	Loudoun Wildlife Conservancy
Loudoun	Catoctin Creek- North Fork	E. coli	Loudoun Wildlife Conservancy
Loudoun	Catoctin Creek- South Fork	E. coli	Loudoun Wildlife Conservancy
Loudoun	Catoctin Creek- Tributary	E. coli	Loudoun Wildlife Conservancy
Loudoun	Gap Run	E. coli	Goose Creek Association
Loudoun	Milltown Creek	E. coli	Loudoun Wildlife Conservancy

Table 5 Continued:

County	Stream Name	Parameter	Name of Monitoring Group
Northumberland	Crabbie Mill Stream	pН	Alliance for the Chesapeake Bay
Page	Chub Run	E. coli	Page County
Page	Hawksbill Creek	E. coli	Page County
Page	Mill Creek	E. coli	Page County
Page	Mill Creek- Tributary	E. coli	Page County
Page	Shenandoah River	E. coli	Page County
Roanoke	Barnhart Creek	Macroinvertebrate	Save Our Streams
Roanoke	Mudlick Creek	Macroinvertebrate	Save Our Streams
Roanoke	Murray Run	Macroinvertebrate	Save Our Streams
Rockingham	Blacks Run	E. coli	Friends of Blacks Run
Rockingham	Cooks Creek	E. coli	Friends of Blacks Run
Shenandoah	Holmans Creek	E. coli	Lord Fairfax SWCD
Shenandoah	Holmans Creek- Tributary	E. coli	Lord Fairfax SWCD
Shenandoah	Holmans Creek- Tributary	E. coli	Lord Fairfax SWCD
Shenandoah	Holmans Creek- Tributary	E. coli	Lord Fairfax SWCD
Warren	Happy Creek	Macroinvertebrate	Save Our Streams
Washington	Cedar Creek	E. coli	Upper Tennessee River Roundtable
Washington	Cedar Creek- East Fork	E. coli	Upper Tennessee River Roundtable
Washington	Hall Creek	E. coli	Upper Tennessee River Roundtable
Washington	Hutton Creek	E. coli	Upper Tennessee River Roundtable
Washington	Plum Creek	E. coli	Upper Tennessee River Roundtable
Washington	Plum Creek- Tributary	E. coli	Upper Tennessee River Roundtable

Citizen/Non-Agency Monitoring Database:

The VADEQ Citizen/Non-Agency monitoring database at www.deq.virginia.gov/easi/mdpro/public_html has been available since January 2008. Currently, the site has 10 registered users representing the following organizations.

Chesterfield County/Friends of Chesterfield's Riverfront
Cowpasture River Association
Dividing Creek Association
Goose Creek Association
Lake Anna Civic Association
Leesville Lake Association
Loudoun Wildlife Conservancy
McClure River Restoration Program
Poquoson Citizens for the Environment
Virginia Save Our Streams

As of November 2008, the database contained 1,219 active sample sites reporting 15,260 sample events.

Citizen/Non-Agency Priorities for 2009:

Voluntary VPDES Monitoring Initiative-

During 2009 as part of a continued effort to encourage voluntary monitoring of Virginia waterways by private industry, DEQ will seek additional water treatment facilities willing to share their source water monitoring results with the agency. Many water treatment

facilities that process surface water for consumption perform intake monitoring to ensure effective treatment is taking place. Since these facilities are required to follow state and federal regulations for analysis of samples, DEQ has an opportunity to acquire quality assured monitoring data with minimal expense to these facilities.

Save Our Streams Validation Study-

In 2006, Virginia Save Our Streams (SOS) conducted a validation study to compare its rocky bottom benthic macroinvertebrate monitoring results with those collected by DEQ biologists. This validation study showed some trends in low SOS scores that agreed with DEQ monitoring showing benthic impairment. Unfortunately, the study on the upper range of SOS scores agreeing with DEQ assessment of healthy benthic communities was inconclusive.

In 2008, SOS collaborated with DEQ to perform a second study, this one focusing on high quality streams to determine if there is agreement with high SOS scores and DEQ assessment. As of the fall of 2008, the study was nearing completion. A final report summarizing the findings will be made available by the summer of 2009. If the study shows good agreement between the high SOS scoring streams and DEQ assessment, it could enable the agency to potentially remove waters from the Impaired Waters List that are monitored using the SOS rocky bottom methodology.

Appendix 1: List of FY2009 Citizen Monitoring Grant Awardees

Name of Organization	Project Details	Parameters	Locality or Region	Watersheds	Award
	Continue support to the Alliance volunteer				
Alliance for the	network at various stations located on	Temp, DO, pH, Salinity,		Various tributaries of the	
Chesapeake Bay	Chesapeake Bay tributaries.	Water Clarity	Eastern half of Virginia	Chesapeake Bay	\$15,000
	Continue Level III water quality monitoring in				
	multiple watersheds along the Appomattox		Amelia, Buckingham,	Middle Appomattox River	
Clean Virgina Waterways		E. coli	Culpeper, Prince Edward	watershed	\$4,200
Cowpasture River	Continue and expand Level II monitoring			Cowpasture River	
Preservation Association	program.	E. coli	Bath, Highland	watershed	\$600
	Purchase of equipment to expand monitoring			Rush and Thornton River	
Culpeper SWCD	network in Rappahannock County.	Macroinvertebrate	Rappahannock	watershed	\$450
Dan River Basin	Purchase of loaner equipment to support		Halifax, Henry, Patrick,	Smith River and	
Association	volunteer monitoring network.	Macroinvertebrate	Pittsylvania	tributaries	\$1,350
Dividing Creek	Continue a Level II/III monitoring program in		,		. ,
Association	Dividing Creek.	Temp, DO, pH, E. coli	Northumberland	Dividing Creek watershed	\$1,500
Eastern Mennonite	Continue volunteer monitoring efforts around	1, , ,		Blacks Run and Cooks	. /
University	Harrisonburg.	E. coli	Augusta	Creek watershed	\$700
Friends of Chesterfield's	Expand and promote the volunteer network in			Various waterbodies in	4.00
Riverfront	Chesterfield County.	Temp, DO, pH, E. coli	Chesterfield	Chesterfield	\$4,000
Friends of Stafford	Maintain and operate 15 station monitoring	Temp, DO, pH, Salinity,	Chesterneid	Lower Rappahannock	φ+,υυυ
Creeks	network in Stafford County.	Water Clarity	Stafford	watershed	\$1,750
Friends of the Russell	Conduct E. coli bacteria monitoring using the	Water Clarity	Starioru	watershed	\$1,750
		E. coli	Buchanan, Dickenson	Russell Fork watershed	\$700
Fork	Coliscan Easygel method.	E. COII	Buchanan, Dickenson	Russen Fork watersned	\$700
F 1 64	Continue monitoring efforts at over 150	Town DO HIE 11	Ending Change Last Discour	Entire Shenandoah River	
Friends of the	monitoring sites in the Shenandoah River	Temp, DO, pH, E. coli,			¢12 500
Shenandoah River	watershed.	Nutrients,	Watershed	watershed	\$12,500
	Maintain and improve a 20 station monitoring	T DO H E "			
	network along Goose Creek in Fauquier and	Temp, DO, pH, E. coli,	F		d1 000
Goose Creek Association	Loudoun Counties.	Macroinvertebrate	Fauquier, Loudoun	Goose Creek watershed	\$1,000
	Continue Level II/III monitoring program in				
Lake Anna Civic	partnership with DEQ. Volunteers collect	Temp, DO, pH, E. coli,	Orange, Louisa,		
Association	samples at 28 sites from April to October.	Nutrients	Spotsylvania	Lake Anna	\$3,500
	Continue Level II/III water quality monitoring				
Leesville Lake	of Leesville Lake from April to September	Temp, DO, pH, E. coli,			
Association	2009.	Water Clarity	Bedford, Campbell	Leesville Lake	\$1,500
Loudoun Wildlife	Continue volunteer monitoring program in				
Conservancy	Loudoun County.	E. coil, Macroinvertebrate	Loudoun	Catoctin Creek watershed	\$700
	Building off a DCR grant in 2008, continue to				
National Committee for	Level II/III monitoring program along major	Temp, DO, pH, E. coli,	Entire New River		
the New River	tributaries of the New River.	Water Clarity	Watershed	New River watershed	\$4,000

Appendix 1 Continued:

Appendix 1 Continued					
Name of Organization	Project Details	Parameters	Locality or Region	Watersheds	Award
	Continue SOS benthic macroinvertebrate			Various tributaries to the	
Northern Virginia SWCD	monitoring at 40 sites in Northern Virginia.	Macroinvertebrate	Fairfax	Potomac River	\$3,100
Poquoson Citizens for the	Establish a long term monitoring program in	Temp, pH, E. coli, Salinity,		Whitehouse Cove and	
Environment	the City of Poquoson.	Water Clarity	Poquoson City	Lyons Creek	\$600
	Part of continuing bacteria monitoring efforts,				
	grant will pay for bacteria source tracking				
Randolph Macon College	analysis.	E. coli	Hanover	Mechumps Creek	\$1,700
Rivanna Conservation	Purchase of World Water Monitoring Day kits	Temp, DO, pH, Water		Rivanna River and	
Society	for use along the Rivanna River.	Clarity	Albemarle	tributaries	\$700
Rockfish Valley				North Fork Rockfish	
Foundation	Establish a new volunteer monitoring program	E. coli	Nelson	River	\$700
	Continue and expand SOS monitoring in the				
The Clinch Coalition	Clinch River watershed.	Macroinvertebrate	Scott, Wise	Clinch River watershed	\$600
Tri-County Lake	Continue 100+ station water quality				
Administrative	monitoring program in Smith Mountain Lake	Temp, DO, pH, E. coli,	Bedford, Campbell,	Smith Mountain Lake and	
Commission	from June to August of 2009.	Nutrients, Chlorophyll a	Franklin	tributaries	\$20,000
Upper Roanoke River	Continue SOS monitoring in the Upper		Botetourt, Craig,	Upper Roanoke River	
Roundtable	Roanoke River watershed.	Macroinvertebrate	Roanoke	watershed	\$2,250
Upper Tennessee River	Expand citizen monitoring program by			Clinch and Powell River	
Roundtable	purchasing SOS sampling equipment.	Macroinvertebrate	Smyth, Washington	tributaries	\$1,900
		Temp, DO, pH, E. coli,			
Virginia Commonwealth	Learning project where students perform water	Water Clarity,			
University	quality tests and involve K-12 schools.	Macroinvertebrate	City of Richmond	Reedy Creek	\$600
Virginia Master					
Naturalists- Central	Start up volunteer monitoring in the greater	Temp, DO, pH, Nutrients,			
Rappahannock Chapter	Fredericksburg area.	E. coli, Macroinvertebrates	Fauquier	Alcotti Run	\$700
Virginia Master					
Naturalists- Riverine	Begin volunteer monitoring efforts in the	Temp, DO, pH, E. coli,	City of Richmond,		
Chapter	Richmond area.	Water Clarity	Henrico	Upham Brook	\$700
	Support VA SOS benthic macroinvertebrate				
Virginia Save Our	monitoring activities in Virginia. Activities			1	
Streams	include training and quality assurance.	Macroinvertebrate	Statewide	Statewide	\$15,000
	Provide public notification of water related				
Virginia Water	events and make available monitoring kits for				.
Monitoring Council	World Water Monitoring Day.	N/A	Statewide	Statewide	\$6,000

Total: \$108,000

Appendix 2: List of Streams Nominated in 2008 for DEQ Sampling

				Z Sumpring		DEQ	
	Stream	Monitoring			Nominated	Honored	
County	Name	Requested	Nominated Location	Reason for Nomination	By	Request	Reason For Decision
ř		_	West of Southern	Land use along Biscuit Run is	•	•	
			Parkway in Mill Creek	different than the land use in Moores			DEQ will sample near the
Albemarle	Biscuit Run	Biological	subdivision	Creek where DEQ currently samples	StreamWatch	Yes	nominated site by 2010
				Land use along Morey Creek is			
				different than the land use in Moores			DEQ will sample near the
			Site is located South of	Creek where DEQ is currently			nominated site during the 2010
Albemarle	Morey Creek	Biological	Bellair Subdivision	sampling	StreamWatch	Yes	sampling season
							DEQ will sample near the
	N. I. G. I	D. 1 . 1	A	Volunteer monitoring indicates poor	G. W. 1	₹7	nominated site during 2010
Albemarle	Naked Creek	Biological	At the Route 884 Bridge	benthic habitat	StreamWatch	Yes	sampling season
				Current DEQ sampling near the Route			DEQ will move the current benthic monitoring station at the
	North Fork		Site is located near	649 Bridge may not show conditions			Route 649 crossing to the
Albemarle		Biological	Advance Mills	closer to Advance Mills	StreamWatch	Yes	requested location.
Andemarie	Kivamia	Diological	Travance winis	closer to revenee wins	Stream v aten	103	DEQ will establish a sample
							station at the nominated location
	Tributary to						for 2010. If the site is an
	Parrott		Tributary is located near	Volunteer monitoring over the past			intermittent stream, station will
Albemarle	Branch	Biological	St. George Avenue	year indicates poor benthic habitat	StreamWatch	Yes	move to Parrot Branch.
							Due to limited resources, DEQ
							cannot sample at the site. DEQ
							review of StreamWatch's
	Tributary to	D. 1 . 1	Site is located near	Volunteer monitoring over the past	G. W. 1	3.7	advanced monitoring program
Albemarle	Rivanna	Biological	Woodbrook	year indicates poor benthic habitat	StreamWatch	No	may help to assess this site.
			N 4 Fig.				DEQ will establish two sampling
			Near the Fairfax/	DEQ monitoring would provide			stations on Little Pimmit Run.
	Little Pimmit		Arlington County line and joins with Pimmit	information to help identify water quality problems and encourage sound	Save Little		Sampling will occur on a bimonthly basis from January
Alexandria		Chemical	Run	land use practices	Pimmit Run	Yes	2009 to December 2010.
Aicanura	Kuli	Chemicai		•	1 mmilit Kun	105	
171	G G 1	D. 1 . 1	Riffle upstream of Route	Volunteer monitoring indicates poor	C. W. 1	₹7	DEQ will sample near the
Fluvanna	Carys Creek	Biological	15 Bridge	benthic habitat	StreamWatch	Yes	nominated site by 2010
	North Fork Cunningham		At tributary near Taylors	Volunteer monitoring over the past			DEQ will sample near the
Fluvanna	Creek	Biological	Ridge	year indicates poor benthic habitat	StreamWatch	Yes	nominated site by 2010
Tiuvaiiia	CICCK	Diviogical	rage	Request DEQ continue sampling to	Stream Water	1 63	DEQ will continue to conduct
	Rivanna		Site is located near	confirm volunteer monitoring and			benthic sampling downstream of
Fluvanna	Rivanna	Biological	Crofton	DEQ sampling results	StreamWatch	Yes	the Route 600 crossing.
Tuvallila	MYCI	Diological	CIOIOII	DEG sampling results	Sucam w atch	1 62	the Route 000 crossing.

	Stream	Monitoring			Nominated	DEQ Honored	
County	Name	Requested	Nominated Location	Reason for Nomination	By	Request	Reason For Decision
v	Tributary	•			Ž	•	Nominated watershed is
	entering		Tributary drains Lake	Volunteer monitoring over the past			extremely small to divert limited
Fluvanna	Jackson Cove	Biological	Monticello	year indicates poor benthic habitat	StreamWatch	No	agency resources at this time.
							DEQ survey determined site was
							on an intermittent stream.
							Sampling method used by DEQ
	Tributary to		Site is located south of	Volunteer monitoring over the past			cannot accurately assess benthic
Fluvanna	Rivanna	Biological	Riverside Drive	year indicates poor benthic habitat	StreamWatch	No	health in intermittent streams.
			120 meters upstream of				DEQ will establish a benthic
			confluence with	Watershed is experiencing	Friends of the		macroinvertebrate station during
Frederick	Lick Run	Biological	Opequon Creek	urbanization pressures	Opequon	Yes	the 2009 sampling year.
							Nominated site is not accessible
							due to private property. DEQ will
							look to sample at two alternate
				This station would provide an accurate			locations from January 2009 to
	Opequon		At the Virginia/West	estimate of bacteria and nutrient	Friends of the		December 2010 on a bimonthly
Frederick	Creek	Chemical	Virginia state line	contributions from Virginia	Opequon	No	basis
				Volunteer monitoring over the past			DEQ will establish a benthic
			300 meters upstream of	three years indicate poor benthic			sampling station upstream of the
Greene	Roach River	Biological	Route 648 Bridge	habitat	StreamWatch	Yes	Route 648 crossing in 2009.
							DEQ survey determined site was
							on an intermittent stream.
			Tributary is near				Sampling method used by DEQ
_	Tributary to		Westwood Drive in	Volunteer monitoring over the past			cannot accurately assess benthic
Greene	Marsh Run	Biological	Charlottesville	year indicates poor benthic habitat	StreamWatch	No	health in intermittent streams.
							The close proximately of this site
				37.1			to the nominated site on the
	D. J.			Volunteer monitoring over the past			Roach River will allow DEQ to
Crooms	Parker	Dialogiasi	At the Doute 622 Daile	three years indicate poor benthic	StreamWatch	No	assess water quality using one
Greene	Branch	Biological	At the Route 633 Bridge	habitat		No	station.
			At the Route 638 Bridge	D	Blackwater		Station will be monitored
G	Cypress	G1	near confluence with the	Previous volunteer monitoring	Nottoway	₹7	bimonthly from January 2009 to
Sussex	Swamp	Chemical	Blackwater River	indicated elevated nutrient levels.	Riverkeeper	Yes	December 2010.